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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/599,017	06/22/2007	**Thorkild Andersen**	8289.89222	3163

22242 7590 10/27/2010

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EXAMINER	
BUCKLEY, AUDREA	

ART UNIT	PAPER NUMBER
1617	

MAIL DATE	DELIVERY MODE
10/27/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/599,017	ANDERSEN, THORKILD	
	Examiner	Art Unit	
	AUDREA J. BUCKLEY	1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 July 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,8,9 and 11-24* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,2,8,9 and 11-24* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Status of the Claims

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 7/6/2010 has been entered. New claims 22-24 were added, and support is found in the specification as filed for these amendments.

Claims 1, 2, 8, 9, 11-24 are pending and under consideration herein.

Maintained Grounds of Rejection

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1, 2, 8, 9, and 11-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanderlaan et al. (US 2002/0197299 A1) in view of Schlitzer (WO 95/34327, filed May 1995, see IDS 11/15/2006) and Yadav et al. (US 2005/0008861, filed Dec. 2003).

Regarding claims 1, 8, and 16, Vanderlaan et al. teach antimicrobial contact lenses and containers which comprise nanosize silver powder as an antibacterial agent. Further regarding claims 11, 17, and 21, the containers are made of thermoplastic polymeric material structured from a mold (page 2, column 2, [0016]) and may be adapted to define a space in which to hold a lens (page 2, column 2, [0014]). It is specified that the lens container, the lens basket, or the top of the lens container may contain activated silver (page 3, column 1, [0018]) and the method for implementing the silver active agent into the polymeric molded article which is the antimicrobial lens container or its components is the same method as disclosed for implementing the silver active agent into the antimicrobial lenses.

Although Vanderlaan teaches that the activated silver may be included in a lens basket to be placed inside of the lens container, Vanderlaan does not expressly teach that the antibacterial agent is implemented as a coating.

However, Schlitzer teaches a method for storing contact lenses using a lens case having a bactericidal coating (see abstract, in particular). Particularly, Example 1 teaches that the wells of a thermoplastic contact lens case being silver coated and filled

with liquids demonstrated improved microbial control when compared with the non-coated wells (see page 3, line 27 – page 4, line 14).

It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to incorporate the antimicrobial coating feature taught by Schlitzer into the contact lens container baskets as taught by Vanderlaan et al. One of ordinary skill in the art at the time the invention was made would have been motivated to do so in order to continue the improved microbial control upon the added silver coating as taught by Schlitzer in contact lens case applications.

Although Vanderlaan teaches the presence of silver nanoparticles, these nanoparticles are not expressly present as a coating. Similarly, Schlitzer does not expressly teach that the silver active antimicrobial agent is in the form of nanoparticles. Regarding claim 2 and further regarding claims 9, 12-15, and 18-20, neither of these references limits the particle size or the concentration of the antimicrobial silver active agent when this active agent is implemented into a coating.

However, Yadav et al. teach silver comprising nanoparticles and related nanotechnology wherein these nanoparticles are utilized as coatings for antimicrobial formulations (see abstract, in particular; see also, [0172]). Yadav et al. teach an embodiment of the invention in which nanoscale or submicron powders are incorporated into plastics used for coatings by (a) preparing nanoscale or submicron powders comprising silver, (b) providing a film of one or more plastics, and (c) coating the nanoscale or submicron powders on the film of the plastic. Further, in certain embodiments, the grain size of the coating is less than 200 nm and in other

embodiments less than 75 nm and in certain embodiments less than 25 nanometers. In certain embodiments, the nanoparticles may be applied on the surface of a plastic (see page 6, paragraph [0071]). In further analysis of silver nanoparticles in consumer applications, silver comprising nanoparticles may be added in small concentrations into contact lenses polymers and to lens cleaning formulations to increase comfort and to provide strong anti-microbial action (in certain embodiments below 10% by weight, in certain embodiments below 1%, and in certain embodiments below 0.1%) (see page 10, paragraph [0140]).

It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to incorporate small quantities of silver nanoparticles in ranges overlapping with those taught by Yadav et al. with respect to contact lens applications into the contact lens container applications disclosed by Vanderlaan et al. and Schlitzer. One would have been motivated to do so to provide increased eye/lens comfort and to provide optimally strong anti-microbial action in accordance with the disclosure of Yadav et al.

New Grounds of Rejection

Claim Rejections - 35 USC § 103

Claims 22-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Vanderlaan et al. (US 2002/0197299 A1) in view of Schlitzer (WO 95/34327, filed May 1995, see IDS 11/15/2006) and Yadav et al. (US 2005/0008861, filed Dec.

2003) as applied to claims 1, 2, 8, 9, and 11-21 above, and further in view of Hayakawa et al. (US 6,191,062 B1, patented Feb. 2001).

The teachings of Vanderlaan, Schlitzer, and Yadav are delineated above. These references do not teach the titanium oxide component as instantly recited.

However, Hayakawa et al. defines the state of the art in teaching that a photocatalyst such as titanium oxide coating (i.e., a thin film) on the surface of a substrate provides added antimicrobial function (see column 1, lines 15-20 in particular).

It would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made to add titanium oxide as taught by Hayakawa et al. to the antimicrobial materials of the Vanderlaan, Schlitzer, and Yadav references. One would have been motivated to do so to improve the antimicrobial function of the silver active agent as taught by Vanderlaan, Schlitzer, and Yadav (see examples of Hayakawa, in particular).

Response to Arguments

Applicant's arguments presented 7/6/2010 have been fully considered but are moot in light of amendment and otherwise unpersuasive. As noted above, all rejections previously presented and not re-iterated herein are withdrawn. Applicant's positions against cited references are summarized and responded to as follows.

Regarding the rejection of claims 1, 8, 16, and 20 under 35 U.S.C. 103(a), Applicant takes the position that the amended claims are supported by the specification at page 11. In reply, the grounds of rejection are maintained particularly because it is

unclear how the specification relates to the claims as they pertain to the quantity of silver nanoparticles in an amount effective to provide at least an antimicrobial effect (emphasis added). The rejection has been changed to include the dependent claims.

Regarding the rejection of claims 1, 2, 8, 9, and 11-21 under 35 U.S.C. 103(a) over Vanderlaan et al. in view of Schlitzer and Yadav et la., Applicant takes the position that Schlitzer's coating has to be combined with quaternary ammonium to have antimicrobial activity and that the Schlitzer reference teaches away from using a coating of silver nanoparticles (page 7 of 10 of remarks). In reply, Applicant's arguments are not persuasive because Applicant is arguing limitations not recited in the claims. Specifically, the claims include a container configured to comprise a fluid and at least one contact lens. There is no exclusion from including a quaternary ammonium compound in the fluid instantly recited. Therefore, the relevance of the cited references is maintained.

Regarding the Yadav reference, Applicant argues against the relevance of this reference since Yadav teaches silver-coated nanoparticles. In addition, Applicant argues that the cited references do not combine to provide the claimed invention. Applicant presents that the coating and container of the instant invention is easier and less expensive than the products taught by Vanderlaan and Yadav and therefore provides advantages over the prior art. In reply, Applicant's argument has been considered but is not persuasive since the Yadav reference was not relied upon alone, but was relied on as a whole in combination with the Vanderlaan and Schlitzer references. It is noted that MPEP 2144.01 states that "in considering the disclosure of a

reference, it is proper to take into account not only the specific teachings of the reference but also the inferences which one skilled in the art would reasonably be expected to draw therefrom." Additionally, a showing of unexpected results must be based on evidence, not argument or speculation. *In re Mayne*, 104 F.3d 1339, 1343-44, 41 USPQ2d 1451, 1455-56 (Fed. Cir. 1997). See also MPEP 716.01(c).

Conclusion

No claims are found allowable.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to AUDREA J. BUCKLEY whose telephone number is

(571)270-1336. The examiner can normally be reached on Monday-Thursday 7:00-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Fereydoun Sajjadi can be reached on (571) 272-3311. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/AJB/

/Richard Schnizer/
Primary Examiner, Art Unit 1635